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ABSTRACT

This case study of a student retention program for at-risk students at Mount Hood Community College (Oregon) contends that student retention programs are seldom as holistic and comprehensive as intended. The study analyzed three areas: the design and implementation of a comprehensive program to improve student retention; the organizational dynamics of change brought about by the retention project; and the role of institutional research. The project students were students who were under-prepared and/or had declared general studies majors with no clear educational goal. The major elements of the retention program included review and revision of student intake services (i.e., placement testing, advising and registration workshops, and a college success class) and intensive academic advising of at-risk students using a case-management approach to advising. Staff and student evaluations of the pilot program were conducted. Staff found the program useful but expressed concern about time constraints, services made available to students who did not need them, and difficulty in contacting students. Students reported satisfaction with the ease of faculty contact. Although there were no significant differences in grade point averages between program students and other students, students receiving the intensive academic advising had a higher one-year retention rate. The role played by institutional research was mixed. (Contains 28 references.) (JLS)

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Building a Community of Learning: A Comprehensive Approach to Assisting At-risk Students

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This paper was presented at the Thirty-Seventh Annual Forum of the Association for Institutional Research held in Orlando, Florida, May 18-21, 1997. This paper was reviewed by the AIR Forum Publications Committee and was judged to be of high quality and of interest to others concerned with the research of higher education. It has therefore been selected to be included in the ERIC Collection of Forum Papers.

Jean Endo
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Abstract

Student attrition continues to be a major concern in the higher education arena. Years of research and the development of strategies to improve student retention have resulted in little improvement. The present case study contends that retention programs seldom are holistic and comprehensive despite the general admonition that they should be in order to succeed. The present study describes and offers analysis in three areas: (a) the design and implementation of a comprehensive program designed to improve student retention, (b) the organizational dynamics of change brought about by the retention project, and (c) the role of institutional research. A Title III grant from the US Department of Education funded the retention project. The basis of the grant application was to replicate retention strategies that had proven successful at other institutions and as described in the literature on retention. Success in other settings, however, does not guarantee success at another institution. The retention project represented a change agent, and thus, organizational dynamics influenced project outcomes. A unique element in this case was that the institutional research office had overall administrative responsibility for the project. The findings may provide insights to researchers and practitioners on the factors influencing both successful and unsuccessful campus-based strategies for improving student retention.

Building a Community of Learning:

A Comprehensive Approach to Assisting At-risk Students

Student attrition continues to be a major concern in the higher education arena, especially for at-risk students. Years of research and the development of strategies to improve student retention have resulted in little improvement. The present case study contends that retention programs seldom are holistic and comprehensive despite the general admonition that they should be in order to succeed.

The present study describes and offers analysis in three areas: (a) the design and implementation of a comprehensive program designed to improve student retention, (b) the organizational dynamics of change brought about by the retention project, and (c) the role of institutional research. A Title III grant from the US Department of Education funded the retention project. The basis of the grant application was to replicate retention strategies that had proven successful at other institutions and as described in the literature on retention. Success in other settings, however, does not guarantee success at another institution. The retention project represented a change agent, and thus, organizational dynamics provided a context that influenced project outcomes. A unique element in this case was that the institutional research office held overall administrative responsibility for the project. The findings may provide insights to researchers and practitioners on the factors influencing both

successful and unsuccessful campus-based strategies for improving student retention.

Literature Review

Researchers and practitioners have experimented with a number of isolated interventions in an attempt to improve retention rates. These interventions include early identification of at-risk students linked to remedial instruction (Capoor & Overstreet, 1993), compulsory placement into basic skills courses (Alfred & Lum, 1988), and mandatory counseling (Duckwall & Vallandingham, 1995). These interventions can somewhat improve retention rates, yet the improvements are moderate at best as reflected by the fact that retention rates have remained constant over the years (Tinto, 1987).

A common element found in much of the literature is that campus efforts to improve student retention are usually isolated, single treatment strategies. This situation appears to conflict with the general theoretical advice that retention efforts must be holistic with broad campus involvement in order to be successful (Bean, 1980; Spady, 1970; Tinto, 1975).

Astin (1975) emphasized the need to move toward cooperative efforts between student development and instruction. He stated that student involvement in the total academic environment is the single most important factor affecting the persistence of students. Support for retention strategies reflecting cooperation between non-academic and academic areas of post-

secondary institutions continues to grow (Aitken, 1982; Endo & Harpel, 1982). In addition, one of the few promising exceptions to constant attrition rates despite intervention is the recently reported impact of learning communities (Tinto, 1996).

Given theoretical work emphasizing the degree of fit between student and institution (Spady, 1970), some researchers began to identify specific areas of the conceptual models that might be useful to institutions in their efforts to positively influence retention rates. These investigations examined both non-academic (i.e., student development) and academic (i.e., instruction) programs and practices.

Several non-academic intervention strategies have received a great deal of attention for their possible positive impact on student retention. These strategies, which underscore the notion that student retention is dependent on more than just strong educational programs (Sharkey et al., 1987), include assessment and remediation (Pascarella et al., 1996), orientation programs (Fidler & Hunter, 1989; Gerber, 1970; Pascarella, Terenzini, & Wolfle, 1986), academic advising (Northman, 1987), freshman seminars (Dunphy, 1987; Nelson, 1987), and mentoring (Astin, 1975; Endo & Harpel, 1982; McCaffrey & Miller, 1982; Pascarella, 1980).

Investigations of academic strategies have yielded various program components regarded as critical to the design and success of academic

retention programs (Levin & Levin, 1991). Among these program components are: curriculum reviews (Ratcliff, 1992); supplemental instruction (Abrams & Jernigan, 1984; Lunger & Neal, 1987); and instructional programs encouraging connections between students, faculty, and courses of study (Matthews, 1993; Tinto, 1996; Tinto, Goodsell-Love, & Russo, 1993; Tinto, Russo, & Kadel, 1994).

The project described here was designed to incorporate all of the above strategies into a comprehensive retention program. The premise was that the combination of these strategies would have a cumulative positive impact on student persistence, especially for at-risk students.

Data Sources and Methodology

This is a descriptive case study of a single college supplemented by quantitative analysis of retention rates comparing treatment to control groups. The grant application defined at-risk students broadly, but targeted those students who were underprepared and/or who had declared general studies as their major with no clear educational goal. The major elements of the retention program included review and revision of student intake services (i.e., placement testing, advising and registration workshops, and a college success class) and intensive academic advising of at-risk students (i.e., a case-management approach to advising). Other components of the program included athlete mentoring; an enhanced study skills program (i.e., linked courses); curriculum

reviews; integrated studies; and professional development activities for faculty and student personnel professionals. Enhanced technology capabilities such as computerized placement testing, an early-warning alert system, and automated degree audit supported these efforts.

The grant project is only at the mid-point of implementation, so the results reported here are limited to the revision of intake services and the intensive intervention program.

Student Intake Services

Because this was a systemic, five-year project, it seemed logical to begin with review and improvement of student in-take procedures. In subsequent years, the project gradually expanded and continues to expand, encompassing instruction and the broader campus community.

Placement testing. For most new students, their first significant experience with the college involves scheduling and taking a placement test. In the early 1980s the college instituted mandatory testing for all entering students enrolling in nine or more credits, or in math or writing courses. Typically, 40% or more of entering students fail to meet established standards for college level course work in math, reading and/or writing. Such students are required to successfully remediate identified deficiencies before enrolling in college level courses.

Prior to the grant project, three separate tests assessed reading, writing and math, adding up to a timed, paper and pencil exercise taking three hours to complete. Students had to schedule appointments to take the test; drop-in testing was unavailable. In addition to concerns about customer service (e.g., the daunting length of the test might discourage potential students from attempting to enroll), the combination of tests seemed to lack coherence.

To assess the reliability and validity of the current placement tests, an outside firm conducted an analysis of a random set of test results. Findings revealed that the reading and writing tests were appropriate, but that the math test failed to differentiate among students at the lower end of skill levels. One problem with the math component was that students selected one of three math tests based on self-assessment of their math skills. Most students chose the algebra test, when in fact, the arithmetic test was more appropriate. A second problem was that the math test required students to use a graphing calculator. Thus, a significant portion of the test measured ability to use the calculator rather than math skills.

A solution to both the customer service and content problems of the prior testing system was found in converting to a computer-based adaptive test. Because the computer test adjusts the difficulty of questions based on a student's previous responses, testing time was reduced by half and the possibility of selecting an inappropriate math test was eliminated. After

reviewing several options, faculty and staff selected the Accuplacer CPTs (Computerized Placement Tests) from The College Board. The test was implemented in the summer of 1996 and received positive reviews from the students. Initial results indicated that placement accuracy is comparable to or better than that of the previous tests.

Advising and registration workshops. Students enrolling at MHCC for the first time were encouraged to sign up for a comprehensive workshop as part of their in-take process. Each workshop had three components: (a) a 20-minute large-group presentation where students received free copies of MHCC printed materials (e.g., the current Schedule of Classes, a handout listing the steps required for registering into classes, another describing degree programs offered by the college); (b) a small-group academic advising session devoted to interpreting placement test scores, discussing the role of the academic advisor, and assisting students in developing a trial schedule of classes; and (c) individual registration times.

During the Fall 1995 registration period, MHCC offered 43 workshop sessions. These sessions were attended by 1,410 students, which represents a show rate just under 75%. At the end of each small group session, and prior to the individual registration times, students evaluated the workshop. Over half (58%) of the participants completed an evaluation form. Most (70-90%) agreed that they could use printed college materials to develop a trial schedule of

classes and that they understood the registration process and their placement test scores. Students also rated the usefulness of information presented in the large- and small-group sessions. Only 25% of the students thought the large-group information was extremely useful whereas 75% of the students thought the small-group information was extremely useful. Given this disparity, staff from appropriate areas initiated discussions toward replacing the large-group component with a video.

College Success class. This one-credit, ten-hour class focused on enhancing student success by developing students' self-understanding and identification with the college community. The class was offered in a variety of formats intended to meet the specific needs of similar types of students (e.g., student athletes, international students, or students receiving financial aid). In practice, however, class sections tended to consist of mixed groups of students.

Discussions and brief lectures covered a variety of college-related topics, for example, student services, college policies and procedures, goal setting, and computing a grade-point-average. Students completed homework assignments such as visiting various campus locations in order to familiarize themselves with the resources available to them. Another important project was the educational plan. Each student had to develop a three-term educational plan

and have it approved and signed by his or her academic advisor. Failure to do so resulted in the student receiving an Incomplete.

More than half of the students (65%) who enrolled in the class evaluated their experience. Most (73%) reported that they would "strongly recommend" or "recommend" the class to a friend. In general, students reported that the information covered in class was somewhat or very helpful. The largest percentages of students (80-85%) found the information on time management, goal setting, locating support services on campus, completing the educational plan, and computing their grade-point-average helpful. Students reported that the least helpful information was on diversity, money management, and living on one's own; only 10-12% of students rated this information as helpful.

Intensive Academic Advising of At-risk Students

In addition to the improvements made to intake services for all entering students, another major component of the comprehensive retention program was a pilot study of intensive academic advising with a small group of at-risk students. The study employed a case-management approach to academic advising. Each advisor was responsible for contacting a small case load of at-risk students throughout the term and assisting them with their academic progress.

Pilot study sample. For the purpose of the pilot study, students were identified as at-risk of dropping out if they had not declared a specific major.

The sample consisted of 75 randomly selected students from a pool of Fall term 1995 students who were enrolled in college for the first time, had declared a General Studies major, participated in the Advising and Registration Workshops, and enrolled in the College Success Class. Of these 75, 9 dropped out at the very beginning of the term. As they made contact with the students, the advisors discovered that only 43 of the remaining 66 pilot students were actually attending college for the first time.

Like other students at MHCC, the 43 pilot students were generally white, but they were more likely to be female and somewhat younger than MHCC students in general. The pilot study students were also somewhat less academically prepared than other MHCC students attending college for the first time. There was no significant difference between the pilot students and other General Studies students in terms of the credit hours they attempted during their first Fall term. (For a complete description of sample characteristics and comparison with other MHCC students please contact the authors.)

Schedule and content of contact with students. Eight Advising and Counseling staff members were expected to contact each student in their case load on three separate occasions during each term (fall, winter, spring), for a total of nine contacts per student for the 1995-1996 academic year.

Each contact had a specific timing and purpose. The initial telephone contact, which was to occur during the first three weeks of the term, provided

an opportunity to establish rapport with each student and discuss the student's educational plan. The second contact, also via telephone, was to occur just before mid-term examinations. Discussions were to focus on the student's progress in each class, thus serving as an early warning system to ensure that students were maintaining standards of academic progress (i.e., a letter grade of C or better in all classes or a 2.00 overall grade-point-average). Additionally, advisors were expected to schedule a convenient time to meet one-on-one with each student. This third contact was directed toward reviewing each student's educational plan and to ensure that each student planned to register for the next term.

Advising and Counseling staff maintained contact logs to record each time they made contact with students in their assigned case load. Data from the contact logs were used to determine the number of contacts staff made with students and the topics they discussed. Students were not contacted as frequently as intended and many of the planned topics were not discussed. On average, advisors contacted students 1.65 times during Fall term, 1.11 times during Winter Term, and 0.64 time during Spring term. During these contacts, only half of the students discussed their educational plan, less than half discussed registration for the next term, and one-third discussed education options or the status of their current classes.

Staff evaluation of the pilot. During the Spring, the staff who acted as academic advisors reviewed the strengths and weaknesses of the pilot study and offered suggestions for improving the activity. They agreed that the activity was useful because it permitted timely intervention into otherwise unknown crisis and reached students who otherwise might not have sought their services. Staff expressed concern, however, that time would not be allotted in their regular work schedule to fully implement this activity. In addition, staff pointed out that some students either did not need or did not heed unsolicited advice, may have found the contacts intrusive, and may have become dependent instead of empowered by participating in the intensive academic advising. Another difficulty was that some students could not easily be reached by telephone.

The staff also discussed the need for a better selection process for advisees so that only students who are truly in college for the first time and exploring their options (i.e., General Studies majors) would be included in the intensively advised group.

Student evaluation of the pilot. Students also had the opportunity to evaluate the intensive academic advising project via telephone interviews. Of the 66 students who had participated in the Intensive Academic Advising pilot study, about half (53%) were contacted and willing to discuss their participation. Students reported that they met with their advisor in person

anywhere from one to ten times during the academic year (M = 3.70 times) and spoke on the phone an average of three times. Many students (79%) said it was very easy to make appointments with their advisor and most (94%) said the appointments were scheduled at convenient times. The majority of students (80%) could also remember the name of their advisor.

Benchmark Data on Student Retention

The general one-year retention rate at MHCC for first time in college students has typically been approximately 60%. For any year, this calculation is based on the number of students from a cohort enrolled for credit at MHCC for the first time in the fall term (or summer term if they continue on) who have enrolled for credit again in the following spring term. For students entering MHCC in the Fall of 1991 and 1992, those who declared professional/technical majors had higher one-year retention rates (68-69%) whereas students who were General Studies majors and transfer majors had lower retention rates (58-62%). Note that students retained in the spring do not necessarily keep the same majors they declared during the first fall term.

Impact of the Comprehensive Retention Program

In order to evaluate the impact of the intensive academic advising and the modified student intake services, for groups of students were compared: (a) those students who received the intensive academic advising, (b) other General Studies majors who took the College Success class, (c) other General Studies

majors who did not take the College Success class, and (d) other first time in college students who were not General Studies majors.

Students involved in the intensive academic advising had a higher one-year retention rate (72%) than other General Studies majors (47-65%) and other first time in college students who were not General Studies majors (51%). Also, General Studies students who took the College Success class were retained at a higher rate (65%) than those who did not (47%). The results must be interpreted cautiously, however, because students were not randomly assigned. Differences in the retention rates could be attributed to differences in the characteristics and background factors of these four groups of students.

In terms of the academic performance, the impact of the comprehensive program was moderate in the first year of its implementation. There were no significant differences among the cumulative grade-point-averages of the four groups of students. In contrast, those students who received intensive academic advising and those General Studies majors who took the College Success class attempted and earned significantly more cumulative credit hours than those General Studies majors who did not take the College Success class and other first time in college students who were not General Studies majors. Again, this difference should be interpreted cautiously.

Organizational Change

The Title III project experienced resistance almost from its beginning despite the effort to involve key staff when the application was first developed. In most cases, resistance was manifest in the lack of cooperation by staff affected rather than direct and open opposition to a particular change or activity. This resistance had not been anticipated and became a time-consuming dilemma, especially for top administrators. Examples included failure of staff to complete assignments even when the grant funded release from normal job duties, unwillingness to change past practices even when existing evidence suggested the change was needed, and delay in implementing changes even after consensus had been achieved or administrative decisions made.

A key element of the Title III grant program is to help build institutional self-sufficiency. Activities funded by Title III were designed to be absorbed by the institution and carried on after grant funding has ended. Building an effective retention program takes several years (especially attempting to realize actual improvements in student retention rates), so failure to institutionalize the project would in essence make the entire effort a waste. To prevent this occurrence, the Title III staff began an effort in the third year of the grant to shift responsibility to the key regular college staff. Through greater involvement of project committees and key administrators, it is anticipated that the changes initiated by the project will gain support and continue.

Implications

The institutional research office played a key role in the development of the retention program. The research director was the project administrator and an outside research firm supported the ongoing assessment component. There were both advantages and disadvantages to this arrangement. One advantage was that institutional research is viewed as somewhat neutral in terms of campus politics and turf issues. Thus, the office's support for the changes initiated by the project were not viewed as promoting an ulterior agenda. The arrangement also facilitated the assessment work performed by outside contractors. In addition, at this college institutional research and computer services are a combined department, and thus, the data and computer applications needs of the project were closely coordinated.

There were both organizational and operational disadvantages to the role played by institutional research in the project. Institutional research lies outside of the chain-of-command for the various areas of the college directly involved in the project (student services and instruction). Support for and follow up on implementation had to be mediated through other administrative offices. Institutional research staff became involved in the daily operations of advising and counseling, registration and other college functions more than one would normally expect and for which the staff did not have requisite experience.

Despite some organizational issues, the project has achieved success to date both in the qualitative and quantitative objectives as outlined in the grant. The next and fourth year of the grant will be critical in solidifying and refining the changes and initiatives started under the grant. By the end of the grant project, it should be clear whether the changes have brought about an increase in retention rates, which is the ultimate evaluative factor.

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